

## *Chapter One*

# **The Future of Traditional Technical Services**

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We are at a point in technical services librarianship where many of us acknowledge that with so many changes happening, with ideas flying, and new standards swirling around us without any real assurance that any of them will work or will help us to do a better and more efficient job, as staffing and budgets are shrinking and resources are becoming more complex, it feels as though the sky is falling. In this chapter, we share our thoughts and views on the future of traditional technical services and discuss whether there is a future for traditional cataloging, acquisitions, and technical services functions.

### PURPOSE OF TECHNICAL SERVICES

We first consider the purpose and functions of traditional technical services. The main purpose of traditional technical services is to provide levels of quality assurance for:

- the resources themselves (selection);
- ensuring that those resources can be found today as efficiently and effectively as possible (with a high level of precision and recall) in various ways: by browsing, author, title, or subject;
- making certain that those materials will be findable in the future by enabling quick payment, providing appropriate shelving accommodation, archiving rare materials, conserving fragile and damaged resources, etc. (conservation, acquisitions, shelving).

## TECHNICAL SERVICES FUNCTIONS

What are the traditional functions of technical services? Certainly, *cataloging* plays a central role in technical services and is at the heart of the library. What service do catalogers provide that is central to the library's core mission? In its most basic form, they help people to locate resources. The role of the catalog librarian<sup>1</sup> remains the same as it historically has been; namely, to describe resources so that users can fulfill the basic FRBR tasks (Functional Requirements for Bibliographic Records, <http://www.ifla.org/publications/functional-requirements-for-bibliographic-records>) and find, identify, select, and obtain those relevant resources. The tools, rules, and metadata schemas will continue to evolve, but the purpose remains the same.

There is a tendency to consider only current users, but we must also think about the users who will seek human knowledge many years into the future. (Note: Author Julie Moore's background is in anthropology, and she views her work as a catalog librarian as an extension of her passion for anthropology.) Catalog librarians play a vital role in preserving the human record. In 2010, Michael Gorman wrote, "Civilization and learning require the human record to be organized, accessible, and preserved. Cataloguers play an important role in that great enterprise—an enterprise that is dedicated to no less a purpose than ensuring the people of the future know what we know, thus enabling them to add to that ever-expanding record."<sup>2</sup>

## THE FUTURE IS LONGER THAN THE PAST

This phrase was included in a speaker's slides for a program offered by the Association for Library Collections and Technical Services (ALCTS). The speaker continued by stating:

Our work is situated in time. This implies that, first, while it is of course necessary to act on the basis of present expectations and resources, policy and practice decisions have multiple ripple effects extending further forward in time than we are able to imagine. Second, remembering the continuity of actions in time will help us to explore new ideas for improving access to information resources, while continuing to understand and value the best of our accomplishments to date.<sup>3</sup>

From an anthropologist cataloger's perspective, this resonates. We are organizing, making accessible, and preserving resources both for people in the present and for people in the future. As catalogers, we must stay focused on the future while acknowledging our past. We continually encounter bibliographic records from earlier times. This is a fact of life as standards have evolved over time or as substandard records were added to our catalogs for

inventory projects or other short-term needs. It is critical to have an understanding of prior cataloging codes as well as the current code. We have a very long history in cataloging, but the future is even longer.

Technical services and cataloging have been evolving from the beginning, something that seems to be a misconception among noncatalogers, particularly administrators who fail to understand the need for cataloging. For consistency's sake, catalogers require "rules" (AACR) or now "instructions" (RDA: Resource Description and Access) and standards as guidelines to inform their work. This consistency is important in moving into the future. Machines can process data effectively only if it is consistent. It has been our experience that noncatalogers fail to appreciate how much the rules (and now instructions) have evolved over time. This has been impacted by the emergence of new formats and has been shaped by new access concerns prompted by electronic resources. In addition, staffing (or lack thereof) has led to a greater reliance on batchloading processes or vendor offerings. All of this in turn has changed our work as catalogers. Much is left to "cataloger's judgment," which requires a great understanding of the rules and an even greater knowledge and understanding of the history of how the rules have developed. As Weitz wrote,

Those conjoined twins of the AACR rules and the MARC data structure, both of which have persisted over more than four decades, have appeared to be stable. But those who use the standards on a daily basis have an acute awareness of how much AACR and MARC have continued to evolve. In other words, to an extent that non-catalogers are generally unaware, catalogers have dealt with change constantly. As it turns out, catalogers have proven themselves to be as resilient and adaptable as either AACR or MARC. That resilience and adaptability will stand catalogers in good stead as we move from the world of AACR to the world of *RDA, Resource Description and Access*. Those qualities will come in just as handy as we also begin to evolve from MARC toward a post-MARC data structure, whatever it may turn out to be.<sup>4</sup>

Weitz eloquently continues:

When done conscientiously, cataloging has always been more art than science. We catalog real-world resources that may or may not conform to the theories that our rules try to codify. As I wrote in the introduction to my *Cataloger's Judgment*, "the world of stuff to catalog is so vast, so slippery, so surprising that individual judgment will always enter into our decisions. . . . Catalogers are thoughtful judges concerning matters of description and access."<sup>5</sup> It is that judgment leavened with imagination that has carried catalogers through these decades of change. That same judgment and imagination will continue to stand them in good stead through the era of Resource Description and Access (RDA), and post-MARC data structure, and whatever future marvels the world sends them to catalog.<sup>6</sup>

Cataloging does not stand alone as a function in technical services. It is midstream in an intertwining process that neither begins nor ends with cataloging. Whether it resides in technical services or public services, the beginning of this stream begins with selection and collection development. To acquire what librarians (and others) have requested, resources pass through the acquisitions functions to be ordered, purchased, delivered, and, for invoices, to be encumbered. Resources are then cataloged and provided with a description and subject analysis (subject access points), and may include a classification number. One of the most vital pieces of cataloging is what one might call "quality control," a large part of which is authority control. These traditional functions look very different from how they looked twenty-five years ago, or even five or ten years ago. They will continue to evolve as we move into the future.

Looking into a future that includes primarily digital materials, we believe that these traditional functions of technical services will continue to evolve; however, these traditional functions will continue to exist in some form. Even in the digital world, there will be a continued need to catalog and for catalogers to provide description and access to the user, both the library user of today and the library user in years to come. Library resources will continue to be selected, collected, and acquired, even if they are digital or electronic. As we move to the linked data environment, there will still be some form of authority control (although it will likely be called something else), even if the mechanism is pointing to an identifier rather than an actual Library of Congress (LC) Name Authority File Record or Subject Authority File Record, the concept will remain. Users will rediscover that they can find materials more efficiently when the terms or names used are controlled. While these functions might look very different, the authors are convinced that these functions will continue to exist as we move into the future, into the age of the MARC 21's replacement (likely BIBFRAME), and while using linked data.

### THE NEED FOR COOPERATION

In the past, various methods and industries developed that helped libraries with technical services functions (publishers and book jobbers for selection; different standards for cataloging and access; standards for archives, conservation, and even shelving). All these methods involved *cooperation* among libraries and the various industries. With the advent of the Internet, normal (traditional) methods have broken down. For instance, publishers and libraries, once respected business associates, seem to have become bitter enemies. This has been fueled in part by economic problems. Vendors are struggling to maintain their share of the market, develop new services, and satisfy

investors. Librarians have seen their budgets continue to shrink, leading to the elimination of critical resources that are important to their work (such as authority control) and loss of staffing. Additionally (and perhaps most importantly), library core values and ethics have evolved to help ensure that librarians used their choices for the good of their communities and not their own gain.

## THE CHALLENGES

There are more materials than ever, or, perhaps more accurately, libraries believe that they must provide a "single search box" that finds "everything." This is not an entirely new concept. In the nineteenth century, libraries tried cataloging each article in every journal they collected (or, in other words, providing a "single search" for everything through the catalog) but failed because the workload could not be realistically sustained. That is when Poole devised his index, and separate journal indexes were begun. In the past (and currently), catalogers created *in analytics* for select book chapters or journal articles to enable discovery of important pieces that reside in a larger work. Another related circumstance is the "bound-with," where one single-part monograph is bound with another. Creating a bound-with binds together separately published works into a single volume and may be used for monographs as well as serials. Therefore, we need to "link together several bibliographic records representing individual titles that physically exist in a single container (i.e., a printed volume, microform, etc.). These titles have been brought together locally or by a publisher. While some of these records could represent analyzed titles, their defining feature is that they are bound together, and not kept separately on the shelves."<sup>7</sup> When author Moore worked at an academic law library in the late 1990s, the first legal monographic series with many different titles was issued electronically on CD-ROM. The law library purchased a giant CD-ROM tower. Moore created "parent" and "children" (or "host" and "guest") bibliographic records for the catalog, so that the public could still find the resources with the same efficiency and effectiveness as when locating them in print format. In current times, this may sound ludicrous, but at the time (about fifteen years ago), it was a huge innovative leap. Over time, there were new titles on the CD-ROMs every month. New titles were added and old ones were deleted just as is seen with contemporary e-book and e-journal packages.

Regarding the Internet, those were also revolutionary times in librarianship. It was an amazing stroke of genius in cataloging to create a MARC field and subfield (856 \$u) that could handle a URL so that the user could directly access the electronic resource. Cataloging Internet resources was a source of an even greater challenge with many new debates. Catalogers began debating

the "content versus carrier" issue, which considered one of the first decisions that a cataloger makes: determining what is being cataloged—the content or the carrier? This was also the beginning of the demise of the GMD (General Material Designation), an early warning indicator to show the nature of the material being cataloged (videorecording, sound recording, etc.). The content versus carrier debate grew heated with the advent of playaways, prerecorded audio player devices for audiobooks that first entered the market in 2005.

The emergence of the Internet also led catalogers to consider whether a resource is "published" when it is made available on the Internet. There was further debate about when a work was issued in print and was simultaneously available on the Internet. This was an especially hot topic in the realm of theses and dissertations, which, when issued in print, are not considered to be "published," per se, yet if they are on the Internet, they are considered published. There is slightly different treatment for them when they are accessible on the Internet. This differs from the former situation, when dissertation were issued in print and later made available on microfilm or microfiche, and are handled like a reproduction. There was a great deal of talk about "born-digital" materials versus a reprinting of sorts to the Internet. Once the Internet came into general use by librarians, there were many very exciting debates. Tim Berners-Lee invented the World Wide Web (WWW) in 1989 at CERN (Conseil Européen pour la Recherche Nucléaire, or European Council for Nuclear Research). It was only in 1993 that the WWW technology was made available by CERN in the public domain.<sup>8</sup> It took about ten years for the technology to become widespread and embraced by the general public. In reality, it has only been available for about ten to fifteen years, which is a relatively short period of time, considering that it is now so ubiquitous.

It seems that human beings are determined to repeat the past, except in an even bigger way. We are not collecting fewer resources or cataloging simpler resources. Instead, we are collecting *more* resources, and they are providing greater challenges to catalog. While we *can* search them in one box, just linking them all together causes problems with different standards, different forms of names and subjects, and so on. Just because we *can* do something via the technology, we must now always ask, "Is this really in the best interest of the user?"

### THE ELEPHANT IN THE ROOM

The authors had a fascinating email discussion with an information technology (IT) specialist at an academic library who estimates that his library receives over 2,000,000 bibliographic records annually that have to be handled and loaded into the catalog. These records comply with standards other than AACR/RDA and MARC, or follow no standards at all. This is the proverbial

elephant in the room. The authors question how anyone can realistically be expected to retain *any* level of quality assurance for 2,000,000 bibliographic records per year. We need to ask, "*Should* we be dumping everything into the catalog?" Technology has made it possible, but is it in the user's best interest?

## A Water Quality Analogy

The above situation is analogous to a stream that empties into a lake that people endeavor to keep clean. If at the same time, a mighty river that is polluted is also emptying into the same lake, the labor to clean the water in the stream is wasted when the public, who takes their water from the lake, find it increasingly polluted. In such a situation, it makes little sense to continue to attempt to keep the water in the stream clean. Ultimately, the polluted lake becomes unusable.

Technical services librarians face other challenges. Technical services budgets and staffing are declining. The new cataloging instructions and standards (e.g., RDA, BIBFRAME, and FRBR) are *not* simpler and do not promise greater cataloging efficiencies. Nonetheless, many libraries have implemented RDA, which was designed to replace AACR2 and is the first step toward the post-MARC environment (most likely BIBFRAME). All of this requires a steep learning curve. The end goal is to deliver the bibliographic universe that is currently housed in our library catalogs onto a global platform of the greater semantic web via linked data. This is a noble goal and one that is worth the fuss *if* we can get ourselves onto the onramp of the semantic web fast enough and before libraries are completely left in the dust.

The library catalog has traditionally focused on making materials "findable," and that has not necessarily meant that they are "easy to find." The future finding tool, however, must be "easy to use" and require no training of the public (thus, the single search box). As searching technology advances, entirely new searches can be created; as a result, people will come to expect new capabilities through searching and may have unrealistic expectations regarding what technology can provide. Russell's blog discussed how to find things that were impossible to find before (and not that long ago). He showed as an example a photo of a nondescript building in an unknown city taken from a room high in another building across the street. The question he asks (and answers) is: "What is the phone number of the office where this photo was taken?" Quite remarkably, such questions *can* be answered today, and as people start to understand this, they will begin to ask more and more such questions. And their expectations for finding quick and easy access to answers will rise.<sup>9</sup>

In comparing this to our history, we expect to be able to type in a few words (e.g., twain finn) and get what we want. When card catalogs were the

norm, this would have seemed like the wildest science fiction. Not only is it possible today, it is considered fundamental and even ho-hum. Searching will continue to change, and technical services must be able to change along with it. Possibly in ten years' time, things that are considered impossible today will become reality. Libraries must stay agile to be able to respond to evolving needs. This is the perfect sort of research for OCLC and research libraries to do: to keep up with these quickly evolving technologies so that we know enough to be able to respond to them. This is part of the responsibility of being a "think tank."

Individuals are becoming increasingly tired of wading through the mountains of irrelevant information that they find on the web. There are serious concerns with privacy and a greater awareness that search engine optimization is being used to manipulate the results to favor companies (that are in business to make a profit) over the individual user searching for information. In a 2012 blog entry, Sullivan questions Google's ability to provide relevant search results and questions whether the company has lost sight of its original core mission.<sup>10</sup> Kidman, in a 2014 post to his blog, *Lifehacker*, states that he believes Google's search results are useless.<sup>11</sup> Keeping our core values in mind, we must consider that the information provided by Google and others is manipulated with a profit in mind. This flies in the face of our core values, such as intellectual freedom, privacy, equity of access to information, and democracy.

## THE OPPORTUNITIES

During this transition period and beyond, there are many opportunities. *Collaboration* will be vital, not only to the survival of technical services but to the survival of libraries themselves. Libraries simply need more help. Today, it is possible to collaborate with groups with whom we did not previously collaborate, such as taking records created in a foreign country in a radically different format (e.g., ONIX or some other format) and including them in the library catalog. Linked data offers many advantages. It is, however, very much in its infancy. The linked data movement promises to help catalogers with authority control issues, although there are a lot of unresolved problems. For more information, visit the WorldCat Linked Data Explorer website (<http://experiment.worldcat.org/entity/work/data/12477503>), which provides an example of linked data being used to describe *Zen and the Art of Motorcycle Maintenance*.

Various application programming interfaces (APIs) can be incorporated into catalogs, many for free (e.g., the Google Translate widget provides a quick view of your catalog and its records in a different language). It is not perfect, but it is quick, easy, and inexpensive. It is also a fact that almost



every organization is facing the same challenges as libraries. They may be more eager to collaborate than before, and the technology exists to allow them to do so.

## THOUGHTS ABOUT THE LIBRARY OF THE FUTURE

The future of technical services is dependent, in large part, on what is to become of the library of the future. Will the library of the future be limited to a virtual library? Only time will tell, but we certainly think and hope not. We believe that there is room enough for both physical objects (even books) *and* digital objects to coexist in our collections. Our users have different learning styles and preferences. While there is evidence that some users prefer materials delivered virtually, there are also users who prefer print. Some people appreciate the visceral activity of reading a print book. There are also studies that show that readers absorb less when reading an e-book as compared to reading the same story in print, at least regarding the sequence of events.<sup>12</sup>

There are many library resources that simply cannot be made available in a digital format. Some resources are meant to be discovered in three-dimensions. Consider the many curriculum materials (manipulatives, kits, three-dimensional resources, realia, models, games) in our libraries whose sole purpose is to enable a three-dimensional and/or tactile experience. Braille resources also come to mind. While it is true that one can take a photograph of these materials, the experience of discovering them digitally is simply not the same as being able to see (and in some cases touch) the material in the manner in which it was intended to be experienced. While the content is the same, even reading a print book, compared to reading an e-book, is a slightly different experience. When we consider library resources, we need to keep in mind *all* resources, not just books/e-books or journals/e-journals, and not only resources with the highest circulation statistics, but *all* of the special format materials and special collections cataloging that takes place in a library.

Special collections make one library's collection distinct from all others. They house "hidden treasures," and it behooves us, as catalogers, to expose these treasures to the world. Special collections materials should rank as the top priority of work for catalog librarians. These collections certainly distinguish us from any other library. Within traditional special collections, one finds rare books, and thus, the whole realm of rare book cataloging. Again, we are beginning to see some very exciting developments in rare book cataloging with rare books being made available digitally. This also enables one of our core values: stewardship. By limiting the handling of these books, the actual books will last for many more years into the future, while yet providing the content to users via the Internet. However, just as with any e-book,

the content may be the same, but there is a vast difference between viewing the book digitally and being able to read the actual book, which may have been written by hand with calligraphy on vellum. It might be an illuminated manuscript, where one can see the strokes of gold leaf and the details of the brush hairs. These details might not matter to the general user. However, there is a difference between viewing the actual manuscript versus the digital object. In rare book cataloging, the cataloger takes special care to describe the particular manifestation of the book, almost as describing a museum artifact. Do these details have meaning to general collections? To a special collection, these details are important. Most libraries have special collections that house the gems, the unique, the special formats, and the rare materials of our libraries.<sup>13</sup> The library catalog, however, should not promote any particular format over another; all formats should be treated so that they are presented equally to the public.

### WHAT IS A LIBRARY, REALLY?

To state that librarians, technical services librarians in particular, are standing on shifting sands is an understatement. It would seem that librarians are racing to grasp at every new technological fad and gadget possible to appear more relevant in our current Google- and smartphone-obsessed society. Today's librarians are engaging their users via tweets, texting, and gaming. Librarians are "embedding" themselves into instructor's online lessons. Librarians are reexamining "the library as place." Librarians are providing places and spaces to create. Libraries are serving as publishers. Libraries are serving as recording studios. Libraries provide printing support. Libraries provide a technical support station for every technological gadget the user might own, in an attempt to duplicate Apple's Genius Bar. In many university settings, the library is becoming more like a student union where the students congregate, armed with fast food and lattes. Libraries provide wonderful spaces for exhibits, programs, lectures, community organization meetings, and classes. Libraries are changing dramatically to accommodate these new activities and services. Many of the "traditional" services are being dismantled or repurposed. Some libraries are recycling their print books as quickly as possible, while others are completely paperless. There are librarians who pride themselves by saying that the library that they envision needs no more space than a desktop. Some libraries are eliminating their reference desks altogether. Additionally, some libraries are abolishing their technical services departments. Because so many of the new functions of a library are dependent upon information technology expertise to work, the library IT department has become an important, if not the dominating, department. While we desperately need the cooperation of IT to help us move forward

into this brave new technological world, we must also keep in mind that the IT mindset is very different from the generalist librarian mindset. In our opinions, it is an unfortunate turn of events when library administrators place IT in charge of the entire library. Borrowing from the Oldsmobile's advertising slogan, this is not your father's library. It is also not even the library that many catalogers used when they were students. The future of technical services functions is dependent, in large part, upon what is to become of the library of the future.

## LIBRARIAN ETHICS AND CORE VALUES

One of the most important things for librarians to do is to consider what it is to be a librarian. Our profession has developed certain ethics and core values. When we keep these core values in mind as we plan ahead, they will guide us well into the future. We are absolutely convinced that these core values must stay intact as we move into the future.

After focusing his studies on the important writings about values in librarianship of four great twentieth-century librarians (namely, Shiyali Ramamrita Ranganathan [1892–1972], Jesse Hauck Shera [1903–1922], Samuel Rothstein [1921–2014], and Lee W. Finks), Gorman wrote his own book entitled *Our Enduring Values: Librarianship in the 21st Century*, in which he outlined a list (and explanations) of what he found to be the eight core values of librarianship. Gorman's core values (with concise explanations) follow:

- *stewardship* (preserving the human record to ensure that future generations know what we know);
- *service* (ensuring that all our policies and procedures are animated by the ethic of service to individuals, communities, society, and posterity);
- *intellectual freedom* (maintaining a commitment to the idea that all people in a free society should be able to read and see whatever they wish to read and see);
- *rationalism* (organizing and managing library services in a rational manner);
- *literacy and learning* (encouraging literacy and the love of learning);
- *equity of access to recorded knowledge and information* (ensuring that all library resources and programs are accessible to all, overcoming technological and monetary barriers to access);
- *privacy* (ensuring the confidentiality of records of library user; overcoming technological invasions of library use);
- *democracy* (playing our part in maintaining the values of a democratic society; participating in the educational process to ensure the educated citizenry that is vital to democracy).<sup>14</sup>

While librarians are pursuing new technology and gadgets to appear more relevant to today's society, we desperately need to hold true to the core values that Gorman advocates.

## SOLUTIONS

It must be recognized that there are multiple solutions to almost any problem, but the solutions may not be easy to implement and may be expensive. Solutions may demand tremendous changes from many groups as they actually begin to work together or as new tools are created and used. Whether people decide to adopt and pay for these solutions depends on their perception of the importance of the problems. Of the challenges we have examined, no single library can solve all of them, but many libraries nevertheless are facing exactly the same problems. If solutions are to exist, librarians need new tools that are much more powerful, and just as important, they need a new way of seeing things.

There are many organizations worldwide that want to provide access to *exactly the same materials* that are at *exactly the same locations* (i.e., using the same URLs). There are tools to find and communicate with almost anyone in the world, and these tools are inexpensive (some are even free) and easy to use. Therefore, there are almost unlimited opportunities to work with new partners. The tools for information capture and to transform that information are also far more powerful than at any time in history.

There are major and wide-ranging consequences to accepting the "single search box" option, and these consequences are not being discussed, although they are being felt everywhere. If people are going to accept the single search box, the consequences for libraries are the same as the analogy we provided of a lake being filled with water from the clean stream versus the huge, polluted river. In such a case, why continue with efforts to maintain a tiny stream that is clean?

## DECISIONS AND DECISION MAKERS

Who should make the decision whether traditional technical services should continue? Is it selectors or reference librarians? Should it be the catalogers? Perhaps it should be the library administration: the library director or dean? Perhaps it should be the director's or dean's supervisor—should it be decided by the provost, the mayor of a city, the governor, or maybe the head of the entire organization? The library's user community should have a major voice. Compare this to the analogy of the water quality of the lake and who should make the decision on it. Should it be the people polluting the river? The people in charge of the stream? The people in charge of the lake (who

have already allowed the lake to become polluted)? Or should it be the people who drink the water from the lake?

The answer is to engage the community who actually uses the resources to make the decision, and not to leave it in the hands of the polluters, or even in our hands. A major part of this decision is whether the catalog will continue to be a tool for information discovery or if it will become merely a tool for inventory purposes (i.e., if the catalog will be used to find something mentioned in a citation found through completely other means). If the catalog will become an inventory to find known items and serve no other purpose, then perhaps our methods are no longer necessary. Who will decide? Again, we think the user community should decide. It must be recognized that there are solutions to the problems we face, but those solutions will require major changes from everyone concerned. It will also require money. If libraries think that their only tools are relational databases, MARC records, ISO2709 format and communications, and they are looking at these issues alone, then they will absolutely fail. We do believe that it will happen, and in fact, we think it is inevitable because the algorithms and SEO (search engine optimization) used in search engines outside of the library are unsustainable for purposes other than marketing. New methods will be developed and adopted that will look very similar to what libraries have been doing all along (traditional technical services). We think that these are the important issues facing technical services.

### **A Practical Example**

How could something like this work? Let us start with a hypothetical academic library in Fresno, California, that has been given 500,000 "free" metadata records for digitized U.S. government documents. (Note: This is an actual example and is typical of what catalogers are faced with handling on an increasingly frequent basis.) These records are not in MARC format, and the access points number well over one million. These records do not follow any discernible rules, and the names used differ from the library's authorized access points (this library uses the LC Name Authority File). For example, the records might use the access point "U.S. House of Representatives" while the authorized access point in the catalog is "United States. Congress. House." There are at least a million access points. What can the library do?

If catalogers are expected to change all of the records to AACR2 or RDA and change all the access points to authorized LC Name Authority File forms, and add LC Subject Headings, it would constitute a massive multiyear or multidecade project. But that would not be sufficient: new government documents appear constantly, and a library that continues to accept these records will discover that the conversions will continue in perpetuity. First, the library needs to understand that other organizations are looking at the

same resources and records and struggling with identical problems. Although the other organizations may not be libraries and may follow the same rules, the same forms of access points, or even the same formats, they still need to edit the records to fit into their finding tools. If your library could establish a project with these other organizations to update the records—potentially with many other agencies—each could organize the workload and make the work more manageable. What would be needed for this to work?

It would require lots of new tools, including those to help the other organizations struggling with the same problems to find one another. It would require other tools to allow these organizations to work together on the same records in an organized fashion, and still other tools that allow participants to collaborate and coordinate their work. The business world uses these kinds of tools, which could be adapted for library purposes. Instead of changing an access point from “U.S. House of Representatives” to “United States. Congress. House,” the focus could be to add a URI that links to the Virtual International Authority File (VIAF), DBpedia, or some newly created tool that will include everyone’s access point. In this way, everyone could benefit from edits to an individual record. This is the promise of linked data, and it could be extended in a variety of ways.

However, if a library decides to convert the records to MARC using MarcEdit and deposit them in the local catalog, other kinds of collaboration are not possible, because to collaborate, the other organizations would have to be given permission to access your catalog to make changes. No one would grant this level of permission. Even then, any updates would be limited to your library’s users, and there would be no reason for other organizations to participate. In order for a collaboration like this to succeed, the records need to reside outside of the library’s catalog in another database. Then the database would *not* need to be populated with MARC records and could be set up in various ways. Organizations could work on the records in the database, which could remain separate. Local catalogs could be set to search multiple databases seamlessly (federated searching) while the users would never have to know that they are simultaneously searching multiple databases. Finally, if the original organization that created these records for the U.S. government documents was made aware of the issues and given the tools, they could add the URIs themselves, thereby eliminating a massive amount of after-the-fact labor at each individual organization. Therefore, any solution involves not only new tools but new collaborations.

The problem of selecting Open Access materials is very similar. If the task is seen as the responsibility of a single library that selects materials that will then be cataloged individually by local catalogers, the task is obviously impossible. However, if the task is seen differently, and many organizations are considering the same materials on the web and are trying to make decisions regarding which materials are worthwhile, the task becomes primarily

one of *coordination* and *sharing of effort*. For instance, an art history selector at Emory University may select an Open Access resource and make a request to the cataloging department, resulting in a record that people at Emory University can find and use. Can a tool be made that will allow everyone to benefit from the selector's decision at Emory University? Yes, and it could be included in the database described above that would enable catalogers to work together more closely on government documents. Instead of the records coming just from the organization creating original records for government documents, it could include other requests to catalog specific resources from selectors in all topics who could then work together from anywhere. Catalogers could collaborate to update these records for each community. From a technical point of view, this can be done. The result would be a catalog in a real sense: a collection of materials selected by experts based on ethical considerations and described and organized by other experts, also based on ethical considerations.

To create a tool like this would not be cheap. It would require resources for hardware; software would need to be developed, adapted, and adopted; and staff and training would be required, plus it would demand major changes from almost everyone concerned. Nevertheless, it is also something that very definitely *can* be done and is being done in other fields of work. If there is a chance for the values of traditional technical services to continue, it is our opinion that something like this must be done. The question is will it be done.

## CONCLUSION

Technical services needs substantial help to survive and to get the necessary resources to accomplish its work. While many of the traditional methods continue to break down, we may still be able to provide the public with the traditional technical services offerings, and there is evidence that people still want what the traditional purposes were designed to provide. To do that, libraries would need to become more open and focus on the final products rather than on the methods used (which will probably evolve at an ever increasing rate). Looking into the future with the entirety of resources that we need to catalog and run through the entire technical services stream in view, we believe that the traditional functions of technical services will continue to evolve and will look very different from contemporary functions; however, we hope these traditional functions will continue to exist in some form. Resources will continue to need to be selected, collected, acquired, and cataloged, and there will be a continued need for authority control, even more in the future than there is right now.

## NOTES

1. We acknowledge that the job titles “cataloger” or “catalog librarian” have fallen out of fashion among some, being replaced by job titles such as “metadata specialist” or “information scientist with a specialty in metadata,” “metadata strategist,” “information architecture engineer,” “access and description professional,” “resource description and access librarian,” “structured knowledge organizer,” “resource alchemist,” “database sanitation engineer” (due to the fact that one spends most of the time cleaning up databases), or “semantic engineer” as per the Autocat discussion list (July 2014). We have decided, at least for this chapter, to continue to name this title what it really is, namely, “cataloger” or “catalog librarian.” We find it to be clearer, less ambiguous, and more honest than the other terms.

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3. David Miller, “Basic Values and the Future of Cataloging,” paper presented at the Association for Library Collections and Technical Services, Cataloging and Classification Section Forum, American Library Association Midwinter Meeting, Seattle, WA, January 21, 2007, <http://www.ala.org/alcts/ianda/bibcontrol/07futcat>.

4. Jay Weitz, “Judgement and Imagination: Carrying Cataloging Through Times of Change,” in Sanchez, *Conversations with Catalogers*, 171.

5. Jay Weitz, *Cataloger’s Judgment: Music Cataloging Questions and Answers from the Music OCLC Users Group Newsletter* (Westport, CT: Libraries Unlimited, 2014), xix–xx.

6. Weitz, “Judgement and Imagination,” 174.

7. Yale University Library, “Bound-Withs,” MFHD Policies and Procedures, 8th ed., <http://www.library.yale.edu/cataloging/ccc/Bound-withs%20revised8.doc>.

8. “The Birth of the Web,” CERN, <http://home.web.cern.ch/topics/birth-web>.

9. Daniel M. Russell, “What Does It Mean to Be Literate in the Age of Google?,” Louis Clark Vanuxem Lecture, Princeton University, February 28, 2012, published on *SearchResearch* (blog), November 4, 2012, <http://searchresearch1.blogspot.ca/2012/11/presentation-on-what-does-it-mean-to-be.html>.

10. Danny Sullivan, “Dear Google: Crappy Results Like This Don’t Give the Impression You Care about Search,” *Search Engine Land* (blog), January 26, 2012, <http://searchengineland.com/dear-google-crappy-santium-results-dont-give-the-impression-you-care-about-search-109388>.

11. Angus Kidman, “Why Google’s Search Results Are Useless Right Now,” *Lifehacker* (blog), February 11, 2014, <http://www.lifehacker.com.au/2014/02/why-googles-search-results-are-useless-right-now/>.

12. Alison Flood, “Readers Absorb Less on Kindles Than on Paper, Study Finds,” *Guardian*, August 19, 2014, <http://www.theguardian.com/books/2014/aug/19/readers-absorb-less-kindles-paper-study-plot-ereader-digitisation>.

13. Julie Renee Moore, “Cataloging at the Opposite Ends of the Cataloging Continuum: From Rare Books to Digitized Manuscripts,” sabbatical report, California State University–Fresno, 2014, 5.

14. Michael Gorman, *Our Enduring Values: Librarianship in the 21st Century* (Chicago: American Library Association, 2000), 26–27.